
CELEBRATING
OUR ACHIEVEMENTS
KIDS PULL OUT SECTION INSIDE!
SOARING to NEW HEIGHTS
WE RECYCLE
EARTH day 2005
35th ANNIVERSARY
SATURDAY, APRIL 23RD
at Pioneers Park

EARTH day

BEGAN AS GRASSROOTS MOVEMENT

In 1970, more than 20 million Americans rallied around the country to observe the very first Earth Day.

The City of Lincoln will celebrate the 35th anniversary of this event with a celebration April 23rd at Pioneers Park - "Soaring to New Heights. Celebrating our Achievements!" This milestone provides us with a great opportunity to look back on the reasons Earth Day was created.

Earth Day founder, former U.S. Senator Gaylord Nelson from Wisconsin, has said that in the 1960s, "All across the country, evidence of environmental degradation was appearing everywhere, and everyone noticed except the political establishment. The environmental issue simply was not to be found on the nation's political agenda. The people were concerned, but the politicians were not." To bring attention to environmental issues. Senator Nelson planned and organized a nationwide grassroots demonstration in the spring of 1970 and invited everyone to participate.

"The wire services carried the story from coast to coast," said Senator Nelson. "The response was electric. It took off like gangbusters. Telegrams, letters, and telephone inquiries poured in from all across the country. The American people finally had a forum to express its concern about what was happening to the land, rivers, lakes and air - and they did so with spectacular exuberance."

On Sunday, November 30th, 1969, the *New York Times* carried a lengthy article about the environment and the plans for Earth Day: "Rising concern about the environmental crisis is sweeping the nation's campuses with an intensity that may be on its way to eclipsing student discontent over the war in Vietnam...a national day of observance of environmental problems...is being planned for next spring...when a nationwide environmental 'teach-in'... coordinated from the office of Senator Gaylord Nelson is planned...."

Out of these events emerged what has come to be known as the environmental movement and the first environmental legislation - the Environmental Protection, Clean Air and Clean Water Acts.

Locally, individuals formed a non-profit group called "Citizens for Environmental Improvement" and started a recycling service in Lincoln that serves as the foundation for Lincoln's current recycling program.

Earth Day is most often observed on April 22. Others observe it on March 21st, the first day of spring. "World Environment Day" as declared by the United Nations is on June 5th. But we can make every day Earth Day by doing what we can as individuals to conserve our natural resources, recycle and promote the health of our environment.

Dear Fellow Citizens:

This year, we celebrate the 35th anniversary of Earth Day. In Lincoln, we can take great pride in our efforts to maintain a clean and healthy city.

We are accustomed to quality drinking water, clean air, an excellent parks system, healthy lakes and streams and an environmentally sound solid waste management system. This is the result of all sectors of the community working together to achieve common goals, and we are taking steps to make sure that quality of life continues.

This publication highlights some of Lincoln's environmental achievements. We hope your children will enjoy the fun pull-out section with activities they can do to learn more about our environment.

We invite you to be part of our Earth Day celebration Saturday, April 23rd at beautiful Pioneers Park. We'll have nature hikes, environmental tours, activities for children, musical entertainment and a hot air balloon launch. Please join us as we "soar to new heights" in providing a clean and safe environment for generations to come.

Sincerely,

Coleen J. Seng

Coleen J. Seng
Mayor of Lincoln

Contacts:

Air Quality
Indoor and outdoor air quality - 441-8040

CITY OF LINCOLN WEB SITE
lincoln.ne.gov

Composting
Backyard composting - 441-7180
Separation of grass and leaves - 441-8215

Green Space
Parks and Recreation - 441-7847

Solid Waste/Recycling
Business recycling assistance - 436-2383
Hazardous waste assistance for households and businesses - 441-8021
Keep Lincoln and Lancaster County Beautiful - 441-8035
Recycling Hotline - 441-8215
Solid Waste Operations - 441-8102

Water Quality
Storm drain issues, erosion control or mud in street - 441-4959
Wastewater or sewer assistance for households or businesses - 441-7961
Drinking water distribution, quality conservation - 441-7571

Earth Day Fun Pages

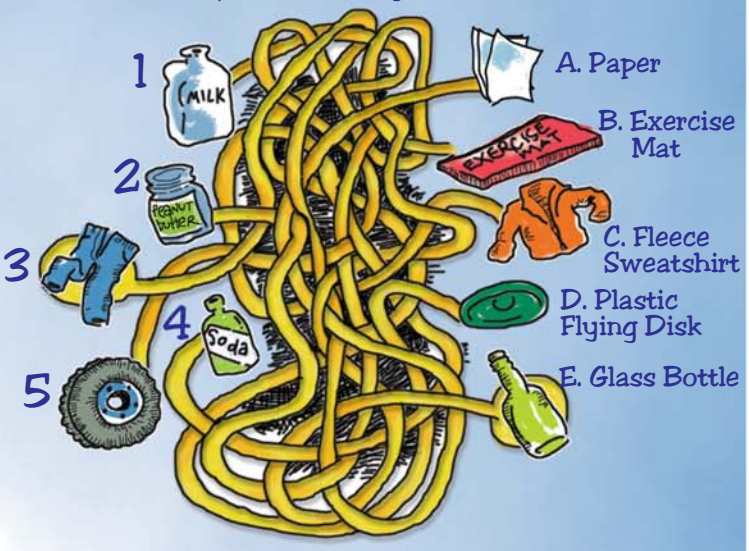
I help the earth by:

Hey Kids! Tell us what you do to help the earth. You might be on 5 CITY-TV! Look for our TV Truck at Pioneers Park, Saturday, April 23rd.

The 3 arrows in the recycling symbol represents the three stages of recycling: "collect," "remake" and "use the new product."

RECYCLING AROUND

Follow the path of each squiggly line to match the number of an object on the left side with the letter of a recycled "second-life" product on the right side.



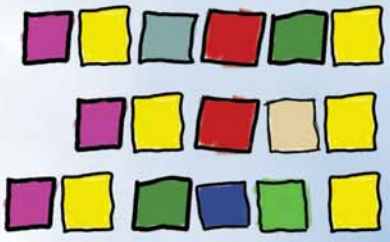
TRASH AND SEEK!

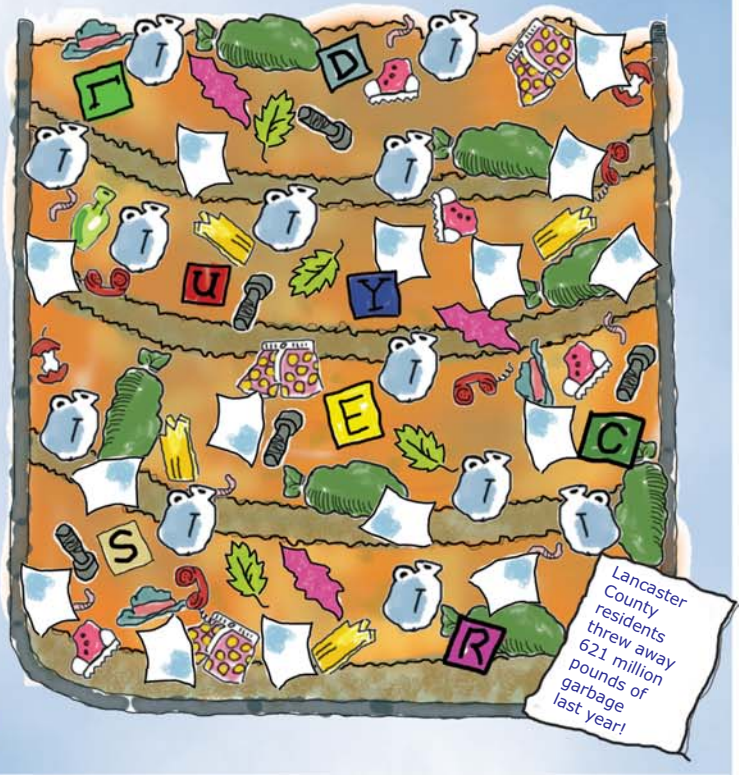
Hidden in the landfill at right are some real trashy items. Each is represented by a symbol shown below. How many of each item can you find? Put the numbers on the lines under the matching symbols. (One is done for you.)

The numbers tell you the approximate percentage of each kind of material found in landfills in the United States. If the numbers add up to 50 you've found all the trash!

LETTERS FROM A LANDFILL

Find the secret message hidden in the landfill at the right. To crack the code, look for all the letters hidden in colored boxes. Matching box colors, fill in each box below with the corresponding letter.

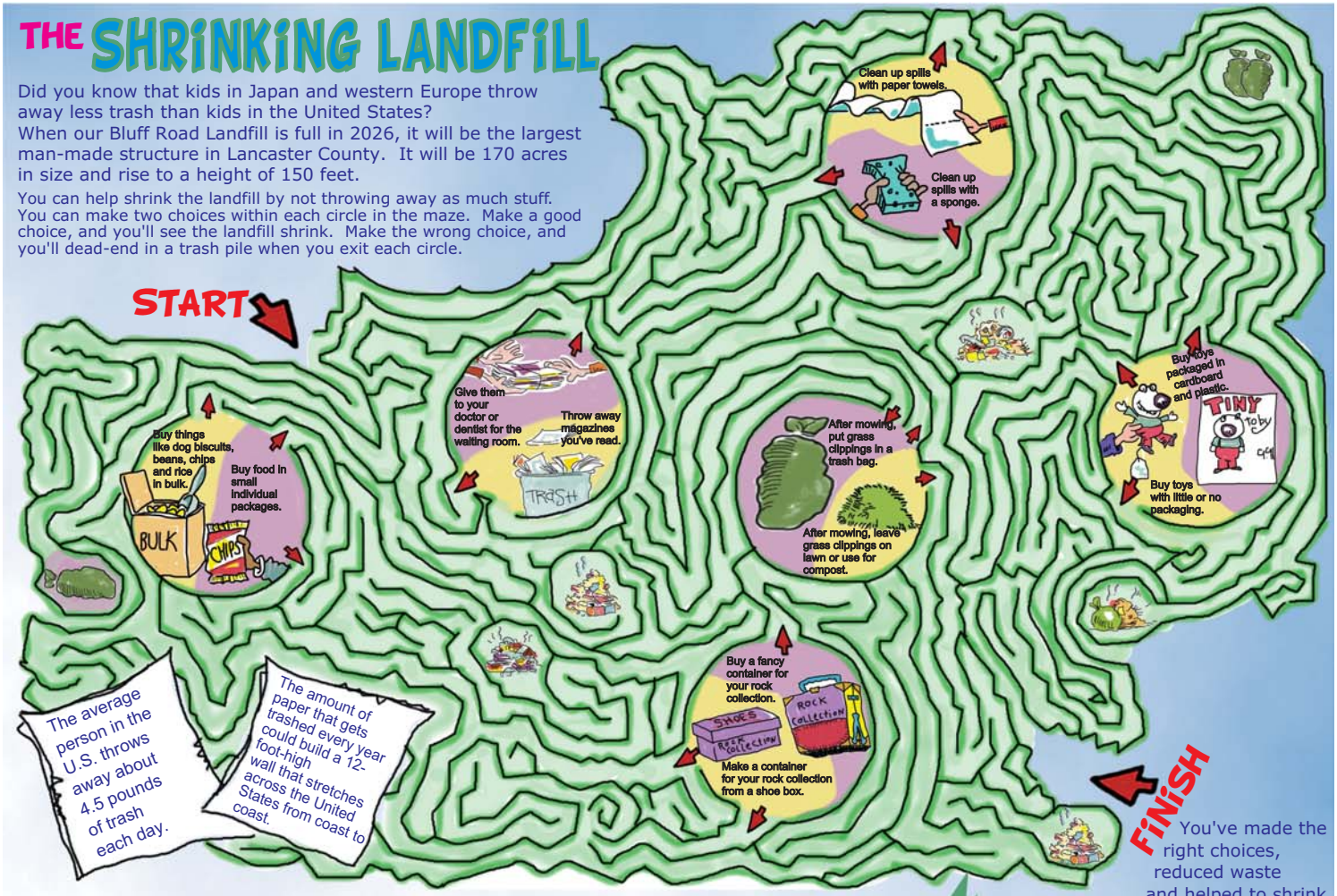




THE SHRINKING LANDFILL

Did you know that kids in Japan and western Europe throw away less trash than kids in the United States?
When our Bluff Road Landfill is full in 2026, it will be the largest man-made structure in Lancaster County. It will be 170 acres in size and rise to a height of 150 feet.

You can help shrink the landfill by not throwing away as much stuff. You can make two choices within each circle in the maze. Make a good choice, and you'll see the landfill shrink. Make the wrong choice, and you'll dead-end in a trash pile when you exit each circle.



You've made the right choices, reduced waste and helped to shrink the landfill. CONGRATULATIONS!

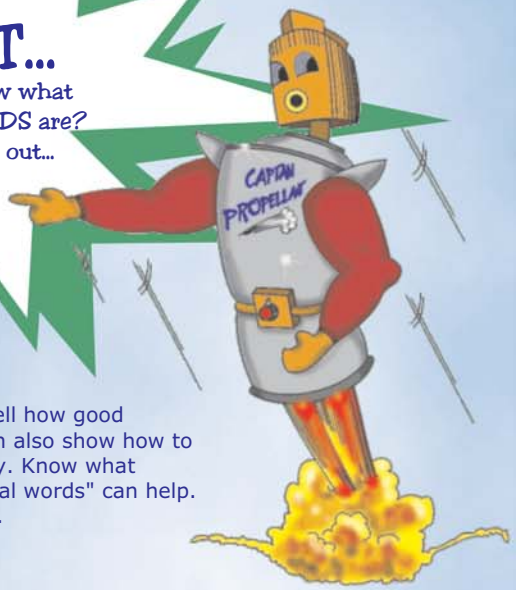
SIGNAL WORDS WITH CAPTAIN PROPELLANT

SIGNAL WORD	MEANING
POISON	highly toxic
DANGER	may be fatal with short exposure; specialized protective equipment needed
WARNING	may be harmful if inhaled or absorbed by contact with the skin
CAUTION	may be irritating

When you read the label, you will know what products are safe to buy and use. Remind your parents to buy the safest product possible.

PSST...

Do you know what SIGNAL WORDS are? Check this out...



Most product labels tell how good a product is. They can also show how to use the product safely. Know what to look for. The "signal words" can help. They are on the label.

WATER WISDOM

MATCH THE WATER-SAVING TIP TO THE AMOUNT OF WATER SAVED

1. Turn off the water while you brush your teeth, and you'll keep this much water from going down the drain.

2. Use a hose nozzle and turn off the water while you wash your car or bike and save this much water.

3. You'll save this much water if you time your shower to keep it under five minutes.

4. Use a broom instead of a hose to wash off driveways and sidewalks, and save this much water.

5. If you turn off the shower while you shampoo, how many gallons will you save?

a. More than 50 gallons a week.

b. Up to 80 gallons every time.

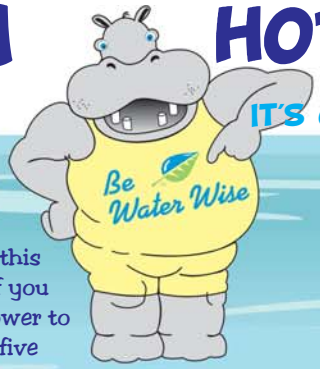
c. Four gallons every minute.

d. More than 100 gallons

e. Up to 1000 gallons a month.

Answer: 1. (c) 2. (d) 3. (e) 4. (b) 5. (a)

HORACE SAYS:



CONSERVE WATER...SAVE CENTS... IT'S GOOD FOR THE ENVIRONMENT TOO

During the summer, the Lincoln Water System can deliver more than 80 million gallons a day of water. On hot days, more than half of the water delivered to Lincoln is used outside, mostly for watering lawns.

Can you guess the first place Horace looks to save water in Lincoln? If you guessed "lawn watering," you are right! For an average home in Lincoln with lawn sprinklers, more than 60,000 gallons of water are used to water the lawn.

INSIDE

- Stop leaks in sinks and toilets. If the toilet makes noise, it might be leaking.
- If your toilet was purchased prior to 1994, use a water saver device in your toilet tank.
- Don't use the toilet as a wastebasket for bugs, tissue and other trash.
- Don't run water when brushing your teeth.
- Limit showers to five minutes or less.
- Wash only full loads of laundry and adjust water levels to the amount of clothes.
- Keep drinking water refrigerated rather than running the tap to get cold water.

OUTSIDE

- Water the lawn early in cool part of the day.
- Don't water on windy days.
- Water your lawn only when dry.
- Measure your sprinkler output, and know how much water is needed for the type of grass that you have. Most people over-water their lawns.
- Adjust sprinklers so they don't water sidewalks, drives or streets.
- Sweep the garage or driveway instead of using water.
- Don't let the hose run when washing the car.
- Use mulch or compost around plants and gardens to keeps plants from drying out.

WATER WORD HUNT

Words can be found forward, backward, up, down and diagonally.

ACRE FOOT
AQUIFER
CONSERVATION
CONTAMINATION
DELTA
DEPLETION
DRAINAGE BASIN
EROSION
ESTUARY
FLOODPLAIN
GROUNDWATER
HEADWATERS
HYDROLOGIC CYCLE
INFILTRATION
POLLUTANT
QUALITY
QUANTITY
RECHARGE
RIVER
RUNOFF
SATURATION ZONE
SURFACE WATER
TRIBUTARY
WATERSHED
WATER TABLE

A N I S R L I V O D B U A V E S T U A R Y Z Q H H
C V L S U Y N W P M G K N I S A B E G A N I A R D
R A I R V L F D E U C L Z I O Y D T B A Q F E O C
E K Q U A L I T Y S L U D M E N I A L P D O O L F
F U D Z Q I L K S U N A D E L T A W O S V U W S L
O R A G O C T Q U V K O S Z P W U E S J Q D Y S E
O T E M D O R A U D Q U I O P L D J T M Z J E O L
T R I B U T A R Y A I C O T Y B E S L W H A U Q C
E E U Q L O T K I L Q M Z V A R P T D O L N Y S Y
Y R G N K C I Q L V T B X D O V T S I Z A D Y K C
J A R J O L O C V I E U W S Y K R D U O E S G O C
A S O G U F N E V K Z R I U Y P M E D H N L U N I
Q R U F O G F A V J E O Q R O S G I S D O N Q H G
M H N U N A J V E I N K C F I Z O R Q N Y N T S O
N J D W V B O S P Q G X D A L T E J D N O E O A L
I J W A Z O D U O E K C A C E T U Q K D S C N E O
Q U A N T I T Y L B I S C E A Q J E G R A H C E R
D I T W L A N B L F V Q J W C K S T Z P A J Q M D
A J E H E M A I U Z E B Q A R P Q G A B E T L X Y
J W R I V T E K T A E V R T Z S R E T A W D A E H
Q J U X R A O B A Q U I F E R P Q L C A E X A U Y
C U A E W J S U N P D H K R S R N X G Y S G B S E
Z T T U W H M C T S U R C O N T A M I N A T I O N
I A S Y A B Y X J K W C W A Q O P J C Y I N S O G
W K U S M S S A T U R A T I O N Z O N E E V F W K

What is a Watershed?

A watershed is an area of land where water drains downhill to the lowest point.

A watershed may also be called a drainage basin. Rain or snow melt can flow on top of the ground as **runoff** or soak into the ground. When **surface water** flows on top of the ground as **runoff**, it travels to ditches, gullies, creeks, streams, ponds, lakes, **rivers** and eventually to the ocean. When water soaks into the ground, it is called **infiltration** and becomes **groundwater**. **Groundwater recharges** or adds water to the **aquifer**, which supplies the water that we drink. Sometimes when it rains very hard, thers is too much water to soak in or to be carried away in streams and rivers. At those times, an area near the stream or river called the **floodplain** will store the water until it can flow downstream or soak into the ground. **Floodplains** may also have wetlands which remove pollution and help to maintain the **aquifer**.

Groundwater can become **contaminated** with **pollutants** such as fertilizers and pesticides, chemicals from factories and other illegally dumped waste. Some people are careless or intentionally dump these **pollutants** into a gutter or storm drain inlet. Signs like "No Dumping - Leads to Stream" are on storm drain inlets to remind people not to **pollute**.

What can your family do to help keep stormwater runoff and **groundwater** free of **pollutants**?

- **Don't pour anything in a gutter or down a storm drain that you wouldn't want to swim in.**
- **Keep your neighborhood free of litter.**
- **Don't overuse fertilizers or pesticides.**
- **Recycle motor oil and antifreeze.**
- **Pick up pet waste and dispose of it properly.**

Air Sampling

Scientists constantly measure and test air quality. They use many tools to find out what is in the air we breathe. One tool they use tests to find out if there are small pieces of dust or soot in the air. These pieces of dust or soot can make people sick it they breathe them. You can make a tool that is like the one scientists use.

Supplies:

- Sheet of clean, plain white paper or white graph paper
- Pen, pencil, or other marker
- Tacks, pins, masking tape
- Petroleum jelly
- Magnifying glass (optional)

1. Draw one-inch square boxes on the sheet of paper.
2. Attach the paper to a tree using the tacks or pins, or to the outside of a building or fence using the masking tape.
3. Cover the entire paper with petroleum jelly.
4. Leave the paper in place for at least a day.
5. Look at how much dust or soot is collected on the paper. If you have a magnifying glass, you can try to count the pieces.
6. Record how much dust or soot there was in each square inch of the paper. This activity will tell you how much dust or soot there was per inch in the air that day.

You can make several of these charts. Label each with a name or number. Put them in different places in your yard. You can put one on the north side of a tree and a second on the south side. Record where you put each chart. Were there any differences in how much dust or soot was collected on each chart?

Pioneers Park Nature Center

Visit Pioneers Park Nature Center to see these plants and animals and many more

ACROSS

1. Our state insect, it makes honey. It and its wild relatives are important for pollinating flowers.
2. This legless reptile eats lots of mice and voles.
3. Our state flower, it provides food and shelter for many insects.
4. Our state bird, it nests in tall grasses, eats insects and has a beautiful song.
5. This common insect eats grass.
6. Our state grass, it grows in bunches and turns a pretty rust color in fall.

DOWN

1. This mammal is a fierce fighter and a skilled digger. It eats other animals.
2. This huge mammal eats grass and has horns.
3. This small falcon has black stripes under its eyes and likes to eat grasshoppers.
4. This tall yellow flower has seeds that many animals like to eat (including humans!)
5. This small mammal eats seeds, has a long tail, and is an important part of the prairie food chain.

ACROSS
1. bee
2. bullsnake
3. goldenrod
4. meadowlark
5. grasshopper
6. little bluestem

DOWN
1. badger
2. bison
3. kestrel
4. sunflower
5. deer mouse

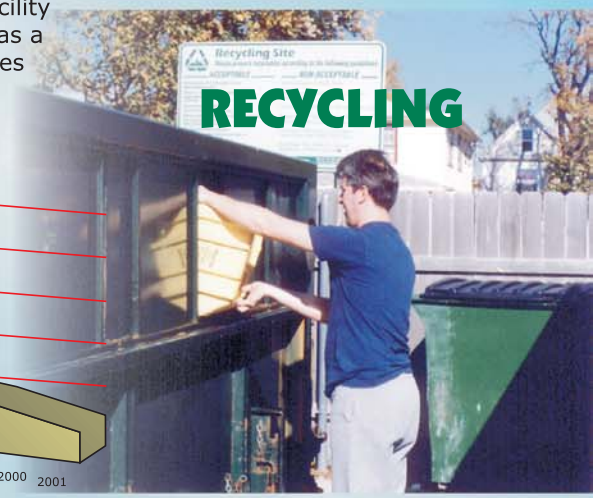
ENVIRONMENT A PRIORITY FOR SOLID WASTE OPERATIONS

The efforts of Lincoln's Solid Waste Operations to deal with waste have changed significantly since 1970 when Earth Day was first celebrated. At that time, the City used an unlined dump on North 48th Street next to Salt Creek and wetlands. The area has a high groundwater table. People disposing of garbage were not charged any fees. Waste was not screened for hazardous materials. The only recycling effort in the community was coordinated by a volunteer organization called Citizens for Environmental Improvement.

In 1988, the City opened the existing landfill at Bluff Road and Highway 77. It was the first landfill in Nebraska to meet federal standards to protect the environment. Its compacted clay and plastic liner system protects the groundwater. It has another system to collect liquids that might pick up pollutants. It is surrounded by groundwater and methane gas monitoring wells. Lasers and global positioning systems are used daily to properly grade and map the disposal areas. Incoming loads are randomly inspected on a regular basis to ensure that no hazardous waste or banned materials enter the landfill. The City processes all appliances containing freon to ensure no ozone-depleting substances are released into the atmosphere.

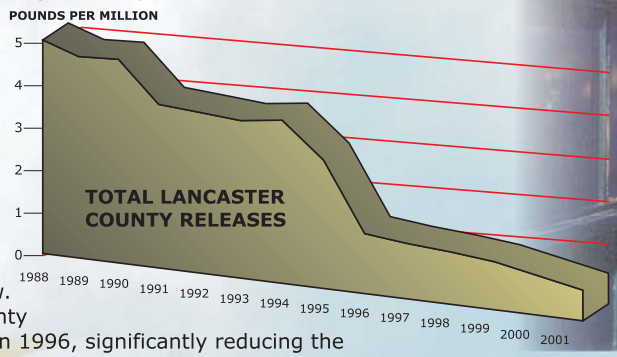
The City promotes programs that conserve landfill space. Residents can recycle material at a network of 28 recycling drop-off sites. Businesses can obtain free waste assessments and recommendations on reducing and recycling waste. Yard waste is composted from April through November each year. Brush and tree debris are ground into wood chip mulch. Clean concrete rubble is diverted to the old North 48th Street site where it is used as beneficial fill. Biosolids from the Theresa Street Wastewater Treatment Facility which were once sent to the landfill are now applied on area farm ground as a fertilizer and soil amendment. The list of items recycled at disposal facilities includes tires, appliances, scrap metal, used oil and auto batteries.

Since 1992, public recycling efforts have added almost four years to the life of the landfill. If these programs ended and this material were sent to the landfill, it would close seven years earlier than the current projection of 2026. Although significant progress has been made in diverting material from the landfill, the per capita solid waste disposal rate for Lancaster County has reversed its downward trend and experienced a slight increase over the last three years.



TOXIC RELEASE INVENTORY-AIR/WATER/LAND

The federal government requires businesses to collect and report data on toxic chemicals that are treated on site, recycled or combusted for energy recovery. The goal is to reduce emissions of toxic chemicals that can harm human health and the environment. The TRI documents any type of industrial release that has any of 650 chemicals listed in federal law. Major industries in Lancaster County began using less toxic chemicals in 1996, significantly reducing the amount of hazardous materials released into the air or water and onto the land.



HOUSEHOLD HAZARDOUS WASTE *Collection*

The City also encourages households and businesses to prevent pollution through several programs. The City has operated a household hazardous waste collection program since 1985. In the past 20 years, the program has diverted more than 500,000 pounds of hazardous materials from Lincoln's landfills. Businesses conduct inventories of the waste they generate and then are provided assistance to determine if changes can be made to reduce wastes or to produce less toxic wastes.

STORMwater

MANAGING STORMWATER PREVENTS FLOODING AND POLLUTION

When it rains in Lincoln, stormwater flows into drainage inlets, gutters and underground pipes before reaching Salt Creek, which drains into the Platte River. Rain falling on hard surfaces like rooftops and parking lots can carry pollutants into our streams and lakes. Lincoln occasionally gets more rain than the storm drain system or streams can handle, and we see flooding.

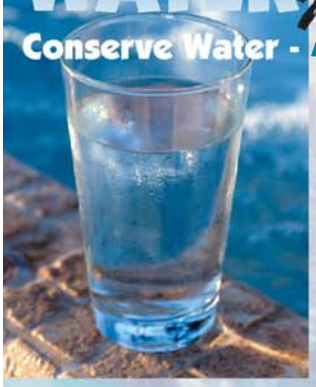
The federal government requires the City to implement programs to help reduce stormwater pollutants. The City's Watershed Management Division works to manage stormwater, reduce flood hazards and improve water quality. The Division fixes existing drainage problems and prevents drainage and pollution problems in new areas. Partnering with other agencies, the division also provides public education; programs to clean up pollutants; sediment and erosion control programs; and the inspection of neighborhood ponds used to prevent flooding.

Here are some simple ways you can keep Lincoln's water free of pollutants:

- Don't pour anything in a gutter or storm drain that you wouldn't want in your swimming area.
- Keep your neighborhood free of litter.
- Don't overuse fertilizers or pesticides.
- Take motor oil and antifreeze to a recycling location.
- Pick up pet waste and dispose of it properly.

WATERquality

Conserve Water - A Precious Resource



The Mayor's Water Conservation Task Force was established in 1990 to help develop conservation practices and policies, and we're seeing the results: the Lincoln Water System (LWS) has seen a 15 percent decrease in per capita residential water use during the last decade.

Water conservation efforts are essential with continued drought and the rising costs of water treatment, storage and pumping. In the early 1990s, more than $80 million was spent to expand Lincoln's water treatment plant, and investment in the system continues.

Did you know it takes 6,000 gallons to apply one inch of water to an average lawn of 10,000 square feet? During the watering season, 40 to 60 percent of residential water use is for irrigation. And studies show that owners of underground sprinklers OVER-water by an average of 50 percent!

Conserve water, fertilizer, fungicides and money:

- Tune up your irrigation system and adjust it to water just the grass.
- Program and adjust your controller for the right amount of irrigation.
- Install a rain sensor, which can pay for itself in a very short time.
- Don't water every day. By watering less frequently and watering deeper, you will promote deeper roots and avoid chemical leaching.
- Avoid run-off by applying water in shorter intervals.
- Water in the early morning hours to avoid losing water to wind and evaporation.

AIRquality

KEEP LINCOLN'S AIR CLEAN

Take a deep breath, and count your blessings. Lincoln's air quality has always been better than the national average and has always exceeded federal standards. Most air pollution comes from vehicles, and that's where you can take action to protect Lincoln's air quality. Use alternative transportation – walking and biking to work or school also are good for your health! Use public transportation. Keep your vehicle tuned up. Make one big trip instead of several small ones. Form or join a car pool.

Lincoln has made progress in improving our air quality over the past 30 years. The Lincoln-Lancaster County Health Department (LLCHD) monitors the air for ozone, dust and soot particles and carbon monoxide. Carbon monoxide – an odorless, tasteless gas – is one of the most significant emissions, so officials watch those levels closely. Federal standards set nine parts per million as an acceptable level. In 1975, the highest eight-hour average for carbon monoxide in Lincoln was 17.4 parts per million. In 2003, it was 4.2 parts per million.

The main permitting tool of the LLCHD is the federal Clean Air Act of 1990. It targets industrial sources of hazardous air emissions. Other initiatives to reduce air pollution include:

- establishing national air emission control standards for vehicles;
- developing hybrid vehicles and alternative fuels, like ethanol;
- requiring catalytic converters, which began in the 1970s;
- participating in the EPA's school bus efforts to reduce idling, promote fuel efficiency and encourage the use of alternative diesel fuels;
- creating fuel efficiency standards for vehicles; and
- voluntary pollution prevention efforts of business and industry.

PARKS

Over the next 25 years, as Lincoln and neighboring communities experience growth, the face of Lancaster County could dramatically change. It will become more challenging to maintain the delicate balance between the natural and built environments.

Natural undeveloped areas, called *open space*, will be lost unless we make early decisions to protect the most significant of these so they can be sensitively integrated into future growth and development.

Perhaps the most important reasons for open space are the ones we take most for granted: clean air, clean water, beautiful parks, rolling prairies, vast sunsets, recreational opportunities and expansive views of rich, productive farmland. We live here because our families are able to thrive and enjoy a quality of life rooted in 150 years of land-stewardship. We value the legacy we have inherited. We want to ensure that our children and those that follow will be able to enjoy an equally rich quality of life.

Open Space is land largely free of residential, commercial and industrial development that can provide access to recreation, wildlife habitat and scenic views.

designed by Citizen Information Center 4/2005